IN THE ABSTRACT

Please amend the Abstract as indicated below. A replacement Abstract is enclosed hereto.

~~One or more embodiments of the invention provide for redlining or marking~~A method, system, and article of manufacture provide the ability to redline or mark up geographic information on a personal digital assistant (PDA). ~~The PDA provides uploadable, sharable redlining data (created from scribbles on the field). The markup graphics elements include a redline and a text note. The redline is a zero-width~~An application on the PDA is configured to obtain map data from a server and display the map data on a screen of the PDA. Markup data is obtained from a user through a stylus that is used to markup the map displayed on the PDA. A ~~vector that mimics ink flowing from a stylus, and an associated text note that pops up as a tooltip when the object is selected. The text note provides text blocks, represented on the map as note symbols anchored at a point, and an associated text note that pops up as a tooltip when the object is selected. Any number of these objects can be included in the markup layer of a specific mapset. Each mapset references a single markup layer. Markup layers are stored locally~~file comprised of the markup data is created and then uploaded from the PDA to the server. The markup data comprises a markup layer that is stored locally on the PDA and uploaded (synchronized) with the server automatically when ~~the mapset list~~a list of a set of maps is updated. ~~The markup layer, being a component of the mapset's data cache, either remains on the client or is purged with the~~mapset. ~~If the mapset and associated markup layer stay on the client, subsequent edits may be made to it. These edits are copied up to the server at the next synchronization. Once a mapset leaves the PDA device, markup objects leave with it. When the map is accessed again, the note or redline object may or may not be with it, dependingon how this map is handled on the server.~~



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## ABSTRACT

A method, system, and article of manufacture provide the ability to redline or mark up geographic information on a personal digital assistant (PDA). An application on the PDA is configured to obtain map data from a server and display the map data on a screen of the PDA. Markup data is obtained from a user through a stylus that is used to markup the map displayed on the PDA. A file comprised of the markup data is created and then uploaded from the PDA to the server. Accordingly, the markup data comprises a markup layer that is stored locally on the PDA and uploaded (synchronized) with the server automatically when a list of a set of maps is updated.




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